In the Claims

1-24 (canceled).

25 (new). A method of detecting the presence of or predisposition to obesity or an associated metabolic disorder in a subject, the method comprising (i) providing a sample from the subject and (ii) detecting the presence of an alteration in the MAP3K11 gene locus in said sample.

26 (new). The method of claim 25, wherein the presence of an alteration in the MAP3K11 gene locus is detected by sequencing, selective hybridisation and/or selective amplification.

27 (new). The method of claim 25, comprising detecting the presence of an altered MAP3K11 polypeptide.

28 (new). The method of claim 27, comprising contacting the sample with an antibody specific for said altered MAP3K11 polypeptide and determining the formation of an immune complex.

29 (new). A method of assessing the response of a subject to a treatment of obesity or an associated metabolic disorder, the method comprising (i) providing a sample from the subject and (ii) detecting the presence of an alteration in the MAP3K11 gene locus in said sample.

30 (new). A method for treating or preventing obesity or an associated metabolic disorder in a subject, which method comprises administering to said subject, a compound selected from the group consisting of a functional MAP3K11 polypeptide, a nucleic acid encoding the same, an agonist or an antagonist of MAP3K11, an antisense or a RNAi of MAP3K11, an antibody or a fragment or a derivative thereof specific to a MAP3K11 polypeptide.

31 (new). A method of selecting biologically active compounds on obesity and associated disorders, said method comprising any one of step (i) to (iv);

(i) contacting a test compound with a MAP3K11 polypeptide or gene or a fragment thereof and determining the ability of said test compound to bind the MAP3K11 polypeptide or gene or a fragment thereof;

(ii) contacting a recombinant host cell expressing a MAP3K11 polypeptide with a test compound, and determining the ability of said test compound to bind said MAP3K11 polypeptide and to modulate the activity of MAP3K11 polypeptide;

(iii) contacting a test compound with a MAP3K11 gene and determining the ability of said test compound to modulate the expression of said MAP3K11 gene; or

(iv) contacting a test compound with a recombinant host cell comprising a reporter construct, said reporter construct comprising a reporter gene under the control of a MAP3K11 gene promoter, and selecting the test compounds that modulate expression of the reporter gene.

32 (new). The method of claim 31, wherein said MAP3K11 gene or polypeptide or a fragment thereof is an altered or mutated MAP3K11 gene or polypeptide or a fragment thereof comprising the alteration or mutation.